

REMARKS

The Office Action dated August 2, 2007 has been received and carefully considered. No amendments have been made in this Response. Reconsideration of the outstanding rejections in the present application is also respectfully requested based on the following remarks.

I. NON-STATUTORY SUBJECT MATTER REJECTION OF CLAIMS 6-8 AND 10

On page 2 of the Office Action, claims 6-8 and 10 were rejected under 35 U.S.C. § 101 as being allegedly directed to non-statutory subject matter. This rejection is hereby respectfully traversed.

The Examiner asserts that claims 6-8 and 10 are not limited to tangible embodiments. Specifically, the Examiner alleges that these claims are "lacking the necessary physical components (hardware) to constitute a machine or a manufacture." However, there is no such requirement on patentable subject matter as long as the claimed invention as a whole accomplishes a practical application. That is, it must produce a "useful, concrete and tangible result." State Street Bank & Trust Co. v. Signature Financial Group Inc., 149 F.3d 1368, 1373, 47 USPQ2d 1596, 1601-02. Furthermore, Applicants direct the Examiner to the case law set forth in In re Beauregard, 35 USPQ 2d 1383,

1384 (Fed. Cir. 1995), In re Lundgren, (B.P.A.I. Case No. 2003-2088 (September 28, 2005)), and others, which clearly provide a patentable subject matter basis for claims 6-8 and 10.

At this point, it should be noted that claims 6-8 and 10 do recite tangible embodiments. For example, claim 6 recites "[a] system for transforming a C/C++ program having a first multi-tasking property to a C/C++ program having a second multi-tasking property" (emphasis added). Furthermore, the system includes "a data structure transformer," "a multi-tasking transformer," "program state optimizer," and "a program generator," which are all physical components modules of the overall system (emphasis added). This contradicts the Examiner's assertion that the claims do not recite a tangible embodiment. As a result, Applicants respectfully submit that the system of claims 6-8 and 10 contains statutory subject matter and therefore should be afforded patent protection.

In view of the foregoing, it is respectfully requested that the aforementioned non-statutory subject matter rejection of claims 6-8 and 10 be withdrawn.

## II. OBVIOUSNESS REJECTION OF CLAIMS 1-3, 5-8, AND 10-12

On page 3 of the Office Action, claims 1-3, 5-8, and 10-12 were rejected under 35 U.S.C. § 103(a) as being allegedly

unpatentable over Piazza (U.S. Patent No. 5,881,291) in view of Sakai (U.S. Patent No. 6,113,650). This rejection is hereby respectfully traversed.

Under 35 U.S.C. § 103, the Patent Office bears the burden of establishing a prima facie case of obviousness. In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). The Patent Office can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of references. Id. Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination. ACS Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). That is, under 35 U.S.C. § 103, teachings of references can be combined only if there is some suggestion or motivation to do so. Id. However, the motivation cannot come from the applicant's invention itself. In re Oetiker, 977 F.2d 1443, 1447, 24 USPQ2d 1443, 1446 (Fed. Cir. 1992). Rather, there must be some reason, suggestion, or motivation found in the prior art whereby a person of ordinary skill in the art would make the combination. Id.

As stated in MPEP § 2143, to establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Also, as stated in MPEP § 2143.01, obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. In re Mills, 916 F.2d 680, 16

USPQ2d 1430 (Fed. Cir. 1990). Further, as stated in MPEP § 2143.01, if the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. In re Gordon, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). Further, if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims prima facie obvious. In re Ratti, 270 F.2d 810, 123 USPQ 349 (CCPA 1959).

Additionally, as stated in MPEP § 2143.03, to establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). That is, "[a]ll words in a claim must be considered in judging the patentability of that claim against the prior art." In re Wilson, 424 F.2d 1382, 165 USPQ 494, 496 (CCPA 1970). If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious. In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

Regarding independent claim 1, the Examiner asserts that "it would have been obvious to...modify the method disclosed by

Piazza to include C/C++ program using the teaching of Sakai...because one of ordinary skill in the art would be motivated to optimize C/C++ program loops (Sakai, column 3, lines 40-58 and see Figure 3A)." See Office Action at page 4. However, Applicants respectfully submit that the rejection is improper for the following reasons.

First, Sakai does not cure the deficiencies of Piazza. The Examiner admits that Piazza does not disclose the claimed C/C++ program. To repair this deficiency, the Examiner relies on Sakai to allegedly disclose the claimed C/C++ program. However, Applicants respectfully submit that Sakai's "C program" is not the same as a "C/C++ program" used in "transforming a first C/C++ program having a first multi-tasking property...[to] a second C/C++ program having a multi-tasking property," as expressly recited in claim 1. At best, Sakai's "C program" runs a loop body within a SIMD instruction sequence. Thus, Sakai fails to cure the deficiencies of Piazza.

The Examiner's allegation that "one cannot show nonobviousness by attacking references individually" is improper because Piazza and Sakai are not being attacked individually. Rather, Applicants are presenting evidence that Piazza and Sakai, alone or in combination, fail to teach each and every claim limitation, which is required to establish a prima facie

case of obviousness. Therefore, the Examiner's response fails in all respects to address how Sakai cures the deficiencies of Piazza.

Second, even if Sakai can be considered to disclose a C/C++ program, Sakai does not disclose the claimed "first C/C++ program" and "second C/C++ program." In fact, nowhere in Sakai are "first C/C++ program" and "second C/C++ program" even mentioned. It appears that the Examiner recognizes this fact yet fails to acknowledge or even respond to this argument anywhere in the Office Action even though the same argument was previously presented in Applicant's April 26, 2007 Response.

Third, even assuming, for the sake of argument, that Sakai discloses the claimed "first C/C++ program" and "second C/C++ program," the Examiner has not provided proper motivation or any rationale to combine Piazza and Sakai. As quoted above, the Examiner states that "[i]t would have been obvious to...modify the method disclosed by Piazza to include C/C++ program using the teaching of Sakai...because one of ordinary skill in the art would be motivated to optimize C/C++ program loops." However, this represents classic impermissible hindsight. The Examiner assumes one would have been motivated to "optimize" this feature but fails to provide any *evidence* as to why one of ordinary skill in the art would choose to implement the C program of

Sakai within the Piazza method in the way claimed. The Office Action's statement that it would "optimize C/C++ program loops" appears to be wholly unsupported. Nowhere in Sakai is "optimize C/C++ program loops" even mentioned. The Examiner points to Sakai, column 3, lines 40-58 and Figure 3A as teaching this motivation, but nothing in these cited portions or the flowchart of Figure 3A of Sakai even describe or mention "optimize C/C++ program loops."

Furthermore, the Examiner fails to set forth an explanation as to why one of ordinary skill in the art would have been motivated to use the C program as in Sakai with a compiler that uses a Scheme/Lisp in CPS as in Piazza, or if one did, how that would work. As acknowledged by the Examiner, the "test is what the combined teachings of the references would have suggested to one of ordinary skill in the art." Clearly, without any supporting evidence, it is respectfully submitted that this test has not been satisfied.

In addition, Applicants respectfully point out that C/C++ was available at the time of Piazza, yet Piazza did not disclose that his compiler was usable with the C/C++ language. The existence of C/C++ at the time of Piazza demonstrates that those skilled in the art recognized the associated difficulties in going from programming C/C++ to programming in Scheme/Lisp.



Thus, this provides clear evidence to support a lack of motivation, and in particular, that it would not have been obvious to substitute one program for the other, as alleged in the Office Action.

Regarding claims 6, 11, and 12, these claims recite subject matter related to claim 1. Thus, the arguments set forth above with respect to claim 1 are equally applicable to claims 6, 11, and 12.

Regarding claims 2-3, 5, 7-8, and 10, these claims are dependent upon either independent claim 1, 6, 11, or 12. Thus, since independent claims 1, 6, 11, and 12 should be allowable as discussed above, 2-3, 5, 7-8, and 10 should also be allowable at least by virtue of their dependency on either independent claim 1, 6, 11, or 12.

In view of the foregoing, it is respectfully requested that the aforementioned obviousness rejection of claims 1-3, 5-8, and 10-12 be withdrawn.

#### IV. CONCLUSION

In view of the foregoing, it is respectfully submitted that the present application is in condition for allowance, and an early indication of the same is courteously solicited. The Examiner is respectfully requested to contact the undersigned by

telephone at the below listed telephone number, in order to expedite resolution of any issues and to expedite passage of the present application to issue, if any comments, questions, or suggestions arise in connection with the present application.

To the extent necessary, a petition for an extension of time under 37 CFR § 1.136 is hereby made.

Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-0206, and please credit any excess fees to the same deposit account.

Respectfully submitted,

Hunton & Williams LLP

By: 

Thomas E. Anderson  
Registration No. 37,063

Hunton & Williams LLP  
1900 K Street, N.W.  
Washington, D.C. 20006-1109  
Telephone: (202) 955-1500  
Facsimile: (202) 778-2201

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